tangular element, means to apply a magnetic field to an arm of said rectangular element other than the arm that includes said superconductive segment, said magnetic field applying means inducing a screening current in said closed superconductive path, and means located adjacent said superconductive segment for detecting when said segment goes normal resistive.

5. Means for controlling the superconductive state of a hard superconductor by that of a soft superconductor comprising a film of superconductive material having an aperture therein, a cross-bar of soft superconductive material mounted over the aperture and in abutting relationship with said film so that the surfaces of said film immediately surrounding said aperture and said cross-bar member form a closed superconductive path, drive means associated with said cross-bar for inducing screening currents therein which tend to drive said soft superconductor resistive, such screening currents producing fields that cannot break through a plane that includes such film and cross-bar so long as said soft superconductor remains superconductive, and a hard superconductor disposed in heat-transfer relationship with said soft superconductor and adapted to receive heat therefrom when said soft superconductor becomes heated due to said screening currents becoming sufficiently high to drive said soft superconductor into its normal resistive state, permitting the rapid collapse of any magnetic field supported by said persistent currents through said cross-bar.

6. A superconductive device of claim 5 wherein the hard superconductor to be controlled is disposed at substantially right angles to the controlling soft superconductor.

7. A superconductive device of claim 5 wherein the hard superconductor to be controlled is bent back upon itself so that the magnetic fields produced in said hard superconductor by its self-current will be cancelled.

8. A superconductive device comprising a first superconductive strip deposited upon an insulated, self-supporting substratum, a first heat-conductive, electrically insulated layer super-imposed upon said first superconductive strip, a second superconductive strip deposited upon said first insulated layer, an aperture in said second strip, said aperture being a complete aperture save for a narrow portion of said second superconductive strip which forms a diameter of said aperture, said narrow portion lying in heat-transferral relationship with said first strip, a second electrically insulated layer superimposed upon said second superconductive strip, and a third superconductive strip superimposed upon said second insulated layer, said third superconductive strip being magnetically coupled to said superconductive narrow portion of the second layer.

9. A device as described in claim 8 wherein the first superconductive strip is disposed at right angles to said third superconductive strip.

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